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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/643,685	08/19/2003	J. Michael Wilson	2002-IP-008024U1	4619

7590

10/06/2005

Robert A. Kent  
Halliburton Energy Services  
2600 South 2nd Street  
Duncan, OK 73536

EXAMINER
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FULLER, BRYAN A

ART UNIT	PAPER NUMBER
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3676

DATE MAILED: 10/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/643,685	<b>Applicant(s)</b> WILSON ET AL.	
	<b>Examiner</b> Bryan A. Fuller	<b>Art Unit</b> 3676	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 30 August 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) 24-35 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |



### DETAILED ACTION

This action is in response to the applicant's amendment filed 8/30/2005. Claims 1 – 23 have been finally rejected.

#### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1 – 7 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Himes et al (5,380,706).

With respect to claims 1 – 7 and 9: Himes et al teaches in column 1, line 52 – column 2, line 2, column 3, lines 28 – 67, in column 5, line 56 – column 7, line 10, and in Table II a method of treating a subterranean zone penetrated by a well bore comprising the steps of: (a) preparing or providing a subterranean zone treating fluid comprising an aqueous fluid, one or more salts and an additive for preventing the swelling and migration of formation clays in said subterranean zone where the additive is l-carboxy-N,N,N-trimethyl methanaminium chloride, and (b) introducing said treating fluid into said subterranean zone. The reference also teaches that the aqueous fluid is fresh water.

The reference further teaches the use of polyacrylamide and hydroxyethylcellulose as viscosity increasing gelling agents.

Art Unit: 3676

3. Claims 13 – 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Himes (5,197,544).

With respect to claims 13 - 16: Himes teaches in column 3, line 3 – column 7, line 44 a method of fracturing a subterranean zone penetrated by a well bore comprising: preparing or providing a subterranean zone fracturing fluid comprising an aqueous fluid, a gelling agent, one or more salts, and an additive for preventing the swelling and migration of formation clays in said subterranean zone where the additive is l-carboxy-N,N,N-trimethyl methanaminium chloride; introducing said fracturing fluid into said subterranean zone at a rate and pressure sufficient to form one or more fractures in said zone; and recovering said fracturing fluid from said zone. The reference also teaches that the aqueous fluid is fresh water.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 8 and 10 – 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Himes et al in view of Gupta et al (5,305,832).

With respect to claims 8 and 10 - 12: Himes et al teaches the features as claimed except the use of carboxymethylhydroxypropylguar as the gelling agent or the use of a cross-linking agent. Gupta et al teaches in column 2, line 37 – column 5, line 22 the use of carboxymethylhydroxypropylguar as the gelling agent and the use of a

Art Unit: 3676

zirconium or titanium cross-linked guar. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Himes et al's method by including a carboxymethylhydroxypropylguar as the gelling agent and the use of a zirconium or titanium cross-linked guar in view of the teachings of Gupta et al. The motivation for the combination of these two references is that these additional materials of Gupta et al minimizes the effect of thermal degradation of the gelling polymer in high temperature formations.

6. Claims 17 – 18 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Himes in view of Himes et al.

With respect to claims 17 – 18 and 20: Himes teaches the features as claimed except the use of specific viscosity increasing gelling agents. Himes et al teaches in column 6, line 56 – column 7, line 10 the use of polyacrylamide and hydroxyethylcellulose as viscosity increasing gelling agents. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Himes' method by including polyacrylamide and hydroxyethylcellulose as viscosity increasing gelling agents in view of the teachings of Himes et al. The motivation for the combination of these two references is that Himes mentions the use of a viscosity affecting gelling agents, but does not name specific materials. Himes et al does list specific viscosity increasing gelling agents.

7. Claims 19 and 21 – 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Himes in view of Gupta et al.

With respect to claims 19 and 21 - 23: Himes teaches the features as claimed except the use of carboxymethylhydroxypropylguar as the gelling agent or the use of a cross-linking agent. Gupta et al teaches in column 2, line 37 – column 5, line 22 the use of carboxymethylhydroxypropylguar as the gelling agent and the use of a zirconium or titanium cross-linked guar. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Himes' method by including a carboxymethylhydroxypropylguar as the gelling agent and the use of a zirconium or titanium cross-linked guar in view of the teachings of Gupta et al. The motivation for the combination of these two references is that these additional materials of Gupta et al minimizes the effect of thermal degradation of the gelling polymer in high temperature formations.

### ***Response to Arguments***

8. Applicant's arguments filed 8/30/2005 have been fully considered but they are not persuasive. Himes I and Himes II teach the use of one or more salts. Himes I teaches the use of salts in column 3, lines 60 – 67. It teaches that it is used lesser amounts than previous inventions, but it is still taught. Himes II teaches the use of salts in column 3, lines 20 – 33. The reference does say that the "salts can be difficult to use and can have detrimental effects ... gelling agent in fresh water." However, in the next few lines, the reference goes on to teach that the salts are used because of the ion-exchange properties of the clays present in the subterranean formations.

Art Unit: 3676

***Conclusion***

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bryan A. Fuller whose telephone number is (571) 272-8119. The examiner can normally be reached on M - Th 7:30 - 5:00 and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian E. Glessner can be reached on (571) 272-6843. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3676

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Brian E. Glessner  
Supervisory Patent Examiner  
Art Unit 3676

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